

DIAGNOSES OF NEW GENERA OF MUSCOID FLIES FOUNDED ON OLD SPECIES.

By CHARLES H. T. TOWNSEND,

Custodian of Muscoid Diptera, United States National Museum.

During the past year, the work of establishing necessary genera for the reception of already-erected species, contained in the muscoid collections of the United States National Museum, has been prosecuted by the writer. A first set of these new genera, hitherto entirely overlooked by students of the superfamily, or not recognized as of generic rank, and thus ignored, was recently published.¹ The present paper is in continuation of this work.

Numbers preceded by the letters TD refer to the Townsend-Dissection series.²

The abbreviation "Rev. Tach." is used for Mr. Coquillett's best-known work on this group.³

Family HYPODERMATIDAE.

ATELECEPHALA, new genus.

Genotype.—*Hypoderma diana* Brauer, Verh. Zool.-Bot. Ges. Wien, vol. 8, 1858, pp. 397, 407-478, 455, fig. 5, pls. 10 and 11; Monogr. Oestr., 1863, p. 113.

Differs from *Hypoderma* as follows: Form in general more narrowed. Front of male at vertex only two-thirds as wide as eye. Carina of second antennal joint completely covering the third joint, arista practically apical. Clypeal swelling very convex, clypeal beard very thin. Scutellum heavily tuberculate on margin. Abdomen of male laterally compressed apically, male genitalia of a distinct type.

The *Hypoderma* group is abundantly entitled to family rank. It seems in some measure allied with the cypseloid (borboroid) stock, as indicated by the auxiliary vein being much approximated to the first vein; and especially by the facial plate being greatly widened and swollen below, the facialia having become vestigial. The facial specialization consists in an extraordinary inflation of the clypeus

¹ Proposal of new muscoid genera for old species, Proc. Biol. Soc. Wash., vol. 28, 1915, pp. 19-23.

² Explained in Proc. U. S. Nat. Mus., vol. 43, p. 301.

³ Revision of the Tachinidae of America north of Mexico, Technical Series, No. 7, U. S. Department of Agriculture, Division of Entomology, Washington, 1897.

below the foveae, forming a large subrectangular area whose edges are even with the parafacialia and cheeks. The nearly obsolete facialia are marked by sutures.

Family MUSCIDAE.

MICROCALLIPHORA, new genus.

Genotype.—*Lucilia varipes* Macquart, Dipt. Exot. Suppl., vol. 4 (2), 1851, p. 222, fig. 4, pl. 23.

A very small Australian form which may be distinguished from *Musca*, *Lucilia*, and related genera by the following characters: Vibrissae inserted on oral margin, otherwise much like *Chrysomya*. Parafacials pubescent. Arista practically bare on lower side. Epistoma not so prominent as in *Musca*.

Family RUTILIIDAE.

EUAMPHIBOLIA, new genus.

Genotype.—*Rutilia fulvipes* Guérin-Meneville, Revue Zool., vol. 6, 1843, p. 273.

Differs from *Amphibolia* as follows: Macrochaetae of abdomen heavy spinelike. Anal segment emarginate in both sexes, buttocks-like. Spines on venter, pectus, and coxae. Transverse marginal row of mesoscutal spines in front of scutellum; latter pectinate with equal long marginal bristles, none of them decussate. About 10 closely-placed median marginal macrochaetae on second abdominal segment, the inner ones shortened; similar patch on third segment, marginal ones on each side making a subcontinuous row slightly marked off from the median patch; anal segment with a median bunch of six on disk, buttocks with bunches of heavy short ones, the segment with long hairs posteriorly and shorter thick pile anteriorly.

The genus may be distinguished at once from *Formosia* by the bare arista.

Family MILTOGRAMMIDAE.

MICROSENOTAINIA, new genus.

Genotype.—*Senotainia nana* Coquillett, Rev. Tach., 1897, p. 81.

Differs from *Senotainia* as follows: Abdomen of male subcylindrical, arched apically, hypopygial hook elongate. Male abdomen practically without macrochaetae, only some vestigial ones showing on very close examination. Front of male strongly flattened, the parafrontals closely approximated over frontalia. The edges of the narrow frontalia are indicated by the frontal bristle rows. Claws of male elongate, rather longer than last tarsal joint.

For purposes of comparison it may be stated that in *Senotainia* the parafrontals are closely approximated in female, not so in male;

abdomen is oval, and hypopygial hook of male is short, while front is scarcely flattened.

Miltogramma decisa Townsend¹ represents subgenus B of this genus, the abdomen of male being slightly swollen. *Miltogramma nana* Wulp, from Guerrero, Mexico, probably does not belong to this genus.

PARAMETOPIA, new genus.

Genotype.—*Parametopia morrisoni* Townsend, new species, for *Metopia leucocephala* Coquillett, Rev. Tach., 1897, p. 127, part (not *Musca leucocephala* Rossi, Fauna Etr., vol. 2, 1790, p. 306), holotype being specimen from White Hountains, New Hampshire (Morrison), labeled by Coquillett *Metopia lateralis* Macquart (not *Degeeria lateralis* Macquart, Dipt. Exot. Suppl., vol. 3, 1847, p. 208). Named in honor of H. K. Morrison. Holotype, No. 19152, U.S.N.M., female.

Both sexes with parafrontals and frontalia much as in female of *Metopia*, with other characters in general of *Metopia*. No median macrochaetae on first abdominal segment in either sex. A median marginal pair on second and third segments, the third segment without continuous marginal row. Differs from *Anicia* Robineau Desvoidy (1863) by lacking the marginal row of third segment and the median marginal pair of first segment in both sexes.

NASONIMYIA, new genus.

Genotype.—*Heteropterina nasoni* Coquillett, Ent. News, vol. 6, 1895, p. 207.

Differs from *Heteropterina* as follows: Cheeks not over one-fifth eye-height. Vibrissae strong, decussate, not long, inserted nearly on oral margin. Parafacials narrow, nearly equilateral, not bulged in profile, hair-rows vestigial or absent. Third antennal joint hardly twice as long as second. Arista well thickened on basal fourth or more. Costal spine pronounced. Male with two pairs of proclinate fronto-orbitals. Hypopygium of male hooklike.

The genus is named in honor of Dr. W. A. Nason.

Family SALMACIIDAE.

PATELLOA, new genus.

Genotype.—*Phorocera leucaniae* Coquillett, Rev. Tach., 1897, p. 104.

Allied to *Phorocera* and *Ctenophorocera*. Description is of female only. Eyes thickly hairy. Facialia strongly ciliate to lowest frontals. Vibrissae inserted on level with middle of the cut-off oral margin. Face receding, length of head at vibrissae only a little over half that at antennae. Arista thickened on less than basal third, first two joints short. Front anteriorly about one and one-third times eye-

¹ Ent. News, vol. 3, 1892, p. 81.

width. Two proclinate outer fronto-orbitals, two reclinate inner ones, a pair of proclinate ocellars; these all about same strength. Two verticals, the inner much longer and not decussate. Proboscis short and fleshy, palpi strongly clavate. Frontals reaching halfway or less to ocellar area, descending to insertion of arista. Second antennal joint slightly elongate; third joint long, about three times as long as the second. Cheeks about one-fourth eye-height. Front tarsi of female not differentiated. Hind tibiae of female sparsely pectinate, with longer bristles. Apical cell open well but not far before wingtip. Fourth vein bent abruptly, without stump or wrinkle. Hind cross-vein sinuate, nearer to cubitus. Costal spine small. Scutellum with rather long decussate apical pair of bristles, two long strong lateral pairs, a lateral one between last and a discal separated pair about equal to apical. Abdomen with median marginal pair on segments one and two; more or less complete marginal row on three, with sometimes a median short discal pair; discal row on four besides terminal bristles. Abdomen swollen, almost oval, nearly as deep as wide, thus rather keg-shaped, anal segment subconical, reproductive slit very long, ovipositor more or less concealed within base of same. Three, abnormally four, sternopleurals; three postsuturals. Whole form stout, legs stout and not elongate, claws of female nearly as long as last tarsal joint. Wings extending a little beyond tip of abdomen. Clypeus sunken.

Uterus short and stout. The black microtype eggs are patelliform, longitudinally-concentrically corrugated.

EUGAEDIOPSIS, new genus.

Genotype.—*Gaediopsis ocellaris* Coquillett, Proc. U. S. Nat. Mus., vol. 25, 1902, p. 118.

Differs from *Gaediopsis* as follows: No facio-orbitals, only fine hairs on parafacials. No ocellars. Facial cilia of equal strength. Cheeks of male about one-third eye-height. Third antennal joint of male about three times as long as the rather elongate second. Arista as described for *Gaediopsis*. Three postacrostichals and four postsuturals.

CHAETOGAEDIOPSIS, new genus.

Genotype.—*Gaediopsis cockerellii* Coquillett, Proc. U. S. Nat. Mus., vol. 25, 1902, p. 117.

Differs from *Gaediopsis* as follows: Cilia of facialia of equal strength. Parafacials with vertical row of stronger bristly hairs in front of the finely-hairy area. Cheeks of male nearly one-half eye-height. Male with two rows of frontal bristles. Hind tibiae of male ciliate, with a long bristle in middle. Third antennal joint of male four or five times as long as wide, less than three times the elongate second. Second aristal joint over four times as long as wide, the third grad-

ually narrowing beyond middle. The intermediate abdominal segments have discals that are a little stronger than the closely-set bristles covering the surface. The latter are a beginning stage of the densely-set spines of abdomen in other forms. Cubitus without wrinkle or stump. No facio-orbitals. Three postacrostichals and four postsuturals. Four strong lateral scutellar bristles. Abdomen thickly hairy, also pleurae and parafrontals.

EUGAEDIA, new genus.

Genotype.—*Gaediopsis setosa* Coquillett, Rev. Tach., 1897, p. 136.

Differs from *Gaediopsis* as follows: Row of long strong bristles on middle of parafacials. No ocellars. Facial cilia of equal strength. Cheeks of male about two-fifths eye-height. Antennae and arista about as in *Chaetogaediopsis*. Short discals on second and third abdominal segments. No definite wrinkle at cubitus. Three postacrostichals and four postsuturals. Pleurae rather thickly hairy. Hairs of abdomen not long, normal.

OEDEMATOCERA, new genus.

Genotype.—*Hypostena flaveola* Coquillett, Rev. Tach., 1897, p. 61.

A remarkable form approaching *Hypertrophocera* in the heavily enlarged third antennal joint of male. Proboscis is much reduced, short; palpi small; mouth evidently subatrophied. Facial plate greatly enlarged; facial depression very deep in male, the facialia and parafacials forming sharp ridges. Wings short and broad. Discal macrochaetae on second and third abdominal segments. The genus possesses the facies of *Leskia*, and may be distinguished therefrom by the above characters. The eggs are microtype, and the reproductive characters are distinctly Salmaciid. (TD 4463.)

PHYLLOPHOROCERA, new genus.

Genotype.—*Phorocera sternalis* Coquillett, Proc. U. S. Nat. Mus., vol. 25, 1902, pp. 111-112.

Differs from the genotype of *Phorocera* (*assimilis* Fallen) as follows:

Male.—Front at vertex fully one-third head-width, frontal bristles in double row, frontalia broader behind, all the bristles of front stout; cilia of facialia stronger and less closely placed, parafacials much narrowed below, facial depression broadened in comparison with facial width, the cheeks not over one-fourth eye-height; second antennal joint scarcely elongate, the third enlarged and strongly convex in profile on upper edge; arista thickened on basal three-fifths, abruptly thin thereafter; palpi much thickened apically. Four sternopleurals and four postsuturals; thoracic and abdominal macrochaetae stronger and shorter, not mixed with long hair on the abdomen but with many short bristles and some hair ventrally.

Abdomen oval, hypopygium comparatively small; wings short, apical cell not so elongate, cubitus and hind crossvein nearer to margin.

MURDOCKIANA, new genus.

Genotype.—*Euphorocera gelida* Coquillett, Rev. Tach., 1897, p. 101.

Differs from *Euphorocera* as follows:

Female.—Front not widening as rapidly as the face, the frontalia nearly as wide as one parafrontal; eyes more thickly hairy; outer vertical bristle nearly as long as inner, strongly curved outward; epistoma characteristically nasute, projecting strongly between the vibrissae; palpi more slender; cheeks much broader, over two-fifths of eye-height. Four lateral scutellar bristles and a separated discal pair. Abdomen hairy, with erect discal and marginal bristles; anal segment thickly set with same, especially below. Costal spine long. Apical cell closed, not so elongate; hind crossvein not so sinuate. Third vein bristled halfway or less to small crossvein.

Male.—Compared with *Euphorocera* male, the front is conspicuously hairy and proportionately broader, the frontalia broader behind, eyes thickly hairy, cheeks well over one-half eye-height, third antennal joint much enlarged and the second comparatively shortened, hypopygium smaller, abdomen ovo-elliptical, the claws not nearly so elongate, and the other characters as described above for the female, except that there are only three lateral scutellars and the disk of scutellum bears many hairlike bristles.

The genotype is from Point Barrow, Alaska, collected by Mr. John Murdock, in honor of whom the genus is named.

Family CROCUTIDAE.

PSEUDOSIPHONA, new genus.

Genotype.—*Siphona brevirostris* Coquillett, Rev. Tach., 1897, p. 76.

Very distinct from *Siphona*, differing in possessing a short fleshy biflexed proboscis, the second flexure being constituted simply by a prolongation backward of labella which are folded on tip of proboscis. Form of body shortened and broadened. Second arisal joint short, or but slightly elongate.

SIPHONOPSIS, new genus.

Genotype.—*Siphona plusiae* Coquillett, Can. Ent., 1895, p. 125.

Labellar prolongation much greater than in *Pseudosiphona*, but fleshy rather than bristlelike, and thus not at all of the character of *Siphona*. The second arisal joint is elongate. Arista practically bare instead of pubescent. Palpi small, slender, instead of clubbed. Third antennal joint acute on upper apical corner instead of rounded apically.

PHYLACTEROPODA, new genus.

Genotype.—*Clausicella tarsalis* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 56.

Differs from *Clausicella* as follows: Last joint of front tarsi of female greatly elongated, widened, and flattened, longer than the front metatarsus. Third antennal joint of female three to four times as long as second, slightly widening toward apex; that of male considerably broadened, convex on under edge in profile, about three and one-half times as long as second. Face below about twice as wide as one eye. Parafacials very narrow, quite level with the facialia and facial depression in female; linear in male, the facial depression a little sunken. Cheeks of female nearly two-fifths eye-height, those of male less than one-third same. Female front anteriorly nearly or quite three-sevenths of head-width; male front a little narrower, both anteriorly and at vertex. Apical cell narrowly open, or practically closed. First vein ending but slightly outside point opposite to small crossvein, not unusually removed from auxiliary vein. Second arisal joint over one-third to nearly one-half as long as the last joint. Male with a pair of median marginal bristles on first segment, female without. Vibrissal axis of head noticeably less than antennal axis. Marginal row of weak appressed bristles on first two segments, differentiated from the short microchaetae of the general surface.

NEPHOPTEROPSIS, new genus.

Genotype.—*Clausicella johnsoni* Coquillett, Rev. Tach., 1897, pp. 55-56.

Differs from *Phylacteropoda* as follows:

Female.—Last front tarsal joint only about half as long as front metatarsus, only slightly widened and flattened. Face not so wide, about one and one-half times one eye. Cheeks hardly one-third eye-height. Body more narrowed. Wings narrower. Hind crossvein nearer to small crossvein, apical cell very narrow. Abdomen burnished metallic violet, thorax and scutellum very densely pollinose. Legs slender, especially the tarsi. Wings clouded.

LOPHOSIOCERA, new genus.

Genotype.—*Lophosiocera curriei* Townsend, new species, for *Clausicella setigera* Coquillett, Rev. Tach., 1897, p. 56, part (not *Lophosia setigera* Thomson, Dipt. Eugenes Resa, 1868, p. 527), holotype being specimen labeled Owl Creek Mountains, Wyoming, taken August 29, 1896, by R. P. Currie, in whose honor the species is named. Holotype No. 19623, U.S.N.M., male.

Differs from *Clausicella* as follows:

Male.—Cheeks hardly over one-fourth eye-height. Third antennal joint subtriangular in profile, greatly widened distally, its apical greater than its upper and about equal to its under profile, the apical edge rather evenly rounded. Apical cell very narrowly open, ending in wing-tip. Vibrissal axis of head distinctly shorter than antennal axis. Arista short, second and third joints equal. Hind crossvein nearer to small crossvein. Vertex much wider than one eye, ocellar area occupying one-half length of front. All macrochaetae weak. Abdomen short, ovoconical, rounded at tip, hypopygium large. Face over twice as wide as one eye, parafacials linear, facial depression only slightly sunken.

EUTHRYPTOCERA, new genus.

Genotype.—*Tachina latifrons* Meigen, Syst. Besch., vol. 4, 1824, p. 365. No. 217.

This is Brauer and Bergenstamm's sense of *Thryptocera*. The genotype of *Thryptocera* Macquart¹ is hereby designated as *Thryptocera bicolor* Macquart (not Meigen).² For characterization of *Euthryptocera*, see Brauer and Bergenstamm, Denkschr. Akad. Wien, vol. 56, 1889, p. 102, fig. 84, and vol. 60, 1893, p. 150, under *Thryptocera* Brauer and Bergenstamm.

CHAETOSTIGMOPTERA, new genus.

Genotype.—*Chaetophleps crassinervis* Walton, Ent. News, vol. 24, 1913, p. 51.

Differs from *Chaetophleps* as follows: Parafacials linear. Epistoma very prominent, projecting. Cheeks over one-fourth eye-height. Facialia bare. Antennae shorter, third joint bulged on lower border and only three and one-half times second. Arista not so incrassate, more pubescent. Female without piercer or ventral carina. No discal bristles on abdomen. Apical cell narrowly open, or nearly closed, ending slightly behind extreme wingtip. Fourth vein merely bent in even gentle curve. Hind crossvein about in middle between cubitus and small crossvein. First vein incrassate distally, the incrassation bristled. Claws microscopic in both sexes.

The holotype is a male. Three females, from Maryland, show the wing stigma fuscous.

SLOSSONAEMYIA, new genus.

Genotype.—*Chaetophleps rostrata* Coquillett, Can. Ent., vol. 30, 1898, p. 235.

Differs from *Chaetostigmoptera* as follows: Wings narrower. First vein not thickened distally. Apical cell well open. Hind crossvein

¹ Soc. Sci. Lille, 1834, p. 310.

² Soc. Sci. Lille, 1834, p. 312.

nearer to small crossvein. Third antennal joint rather narrow, about three times second. Proboscis beyond geniculation rather longer than head-height, curved strongly backward and upward at tip, subfleshy but pointed apically.

The genus is named in honor of Mrs. Annie Trumbull Slosson.

EUCHAETOPHLEPS, new genus.

Genotype.—*Chaetophleps polita* Coquillett, Proc. U. S. Nat. Mus., vol. 25, 1902, p. 107.

Differs from *Chaetophleps* as follows: No proclinate fronto-orbitals in male. Male front averaging no broader than one eye, very slightly widening anteriorly, the face widening in same proportion. Parafacials gradually narrowing below. Cheeks of male hardly one-sixth eye-height. Apical cell narrowly open. Female unknown.

UROPHYLLOPSIS, new genus.

Genotype.—*Admontia retiniae* Coquillett, Rev. Tach., 1897, p. 54.

Differs from *Admontia* as follows: Facialia not ciliate. Parafacials not broad, with practically only one row of very fine hairs, latter often vestigial. Cheeks of female hardly over one-fourth eye-height. Third antennal joint of female about three times as long as second. Arista thickened on basal third. Basal aristal joints extremely short, hardly distinguishable. Front tarsi of female not widened. Apical cell closed in margin a little before wingtip.

TORTRICIOPHAGA, new genus.

Genotype.—*Pseudomythyria tortricis* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 55; referred to *Hypostena*, Rev. Tach., 1897, p. 60.

Differs from *Urophyllopsis* as follows:

Female.—Front at vertex more than one-third head-width. Parafrontals wider, parafacials bare, facialia ciliate; third antennal joint about two and one-half times second, arista thickened on nearly basal half. Four sternopleurals, four postsuturals. Abdomen broad-ovate, without median marginal pair of bristles on first segment; third segment with marginal row of 10 above, rather removed from margin; anal segment with discal row of 10 and marginal row of 4 or 5; all the macrochaetae erect and rather short. Apical cell with petiole about two-fifths as long as hind crossvein, latter almost in middle between cubitus and small crossvein.

PHYTOADMONTIA, new genus.

Genotype.—*Admontia setigera* Coquillett, Invert. Pacif. (Claremont, California) vol. 1, 1904, p. 36.

Differs from *Admontia* as follows: Facialia bare. Second aristal joint not elongate. Parafacialia not broad, with row of strong facio-orbitals appearing as continuation of frontals. Cheeks of female nearly one-half eye-height. Front tarsi of female modified, laterally compressed. Third antennal joint of female about three and one-half times second. Arista thickened on basal third or so. No discal bristles on intermediate abdominal segments. Apical cell narrowly open, ending a little before wingtip. Costal spine well developed.

Family MINTHOIDAE.

UROMACQUARTIA, new genus.

Genotype.—*Uromacquartia halisidotae* Townsend, new species, for *Macquartia pristis* Coquillett, Rev. Tach., 1897, p. 64, part (not *Dexia pristis* Walker, List 4, 1849, p. 841), holotype being specimen labeled "5736.01 Iss. 2 June '93," reared from *Halisidota argentata*, Aurora Mills, Oregon. Holotype No. 19151, U.S.N.M., male.

Differs from *Uramya* Robineau Desvoidy as follows: Abdomen of male much broader, caudal process comparatively short. Male tarsi only a little longer than tibiae. Arista practically bare. Middle legs not elongate.

ICTERICOPHYTO, new genus.

Genotype.—*Eulasiona spinosa* Coquillett, Rev. Tach., 1897, p. 53.

Differs from *Eulasiona* as follows: Female front at vertex fully as wide as one eye, widening but little anteriorly. Frontalia broad, occupying more than one-third width of front. Cheeks of female quite one-half eye-height. Third antennal joint of female broad, thick, about three times as long as the short second. Arista well thickened on basal half, becoming abruptly slender. Hind crossvein straight, much nearer to cubitus than to small crossvein. Apical cell widely open just before wingtip.

ICONOMEDINA, new genus.

Genotype.—*Degeeria washingtonae* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 104; Rev. Tach., 1897, p. 55, referred to *Medina*.

Differs from *Medina* as follows: Second aristal joint very elongate. Body and legs very stout. Front tarsi of female conspicuously thickened, widened, and flattened. Cheeks of female quite one-half eye-height. Front of female at vertex two-fifths head-width, the whole front averaging over one-half head-width, the face gradually widening therefrom. Frontalia of female over one-third width of

front. Eyes thinly and faintly short-hairy. Frontal bristles reaching about to end of second antennal joint. Abdomen of female slightly broader than the thorax, suboval. Apical cell narrowly open a little before wingtip. Male unknown.

PYRAUSTOMYIA, new genus.

Genotype.—*Panzeria penitalis* Coquillett, Rev. Tach., 1897, p. 89.

Differs from *Phyllomya* as follows: *Male*.—Eyes hairy. No proclinate fronto-orbitals. Parafacials practically bare. Arista bare. Head about as long at oral margin as at antennae, epistoma well produced. Palpi stout, well thickened apically. Front about three-fifths eye-width on posterior half. Second antennal joint elongate. Whole body much broader, thorax and abdomen equaling head-width. Posterior one of the two lateral scutellar macrochaetae not much longer than the anterior one. First abdominal segment not so elongate, without macrochaetae other than laterals. Second segment without marginal row; but with median marginal, discal, and subdiscal pairs. Third segment with median discal and subdiscal pairs, of which one is often weaker, and marginal row. Costal spine present. Apical crossvein not bent in.

The holotype of the above species was reared by Dr. C. V. Riley from *Pyrausta penitalis* at St. Louis, Missouri, June 1, 1876.

XANTHOPHYTO, new genus.

Genotype.—*Nemoraea labis* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 104.

Differs from *Phyto* as follows:

Female.—Frontal bristles doubled or trebled anteriorly, descending to base of third antennal joint. Frontalia narrowing posteriorly. Eyes hairy. The single pair of inner fronto-orbitals divaricate. Antennae inserted very high, above upper three-fourths of eye, the frontal length only a little greater than facial. Parafacials bare. Palpi strong, thickened apically. Antennae stouter, the third joint longer and subtruncate apically. Macrochaetae of head stronger. Face a little broader. Abdomen broader. Apical cell widely open a little before wingtip, fourth vein continued in strong stump, apical and hind crossveins both nearly parallel with hind margin of wing. Tegulae broader and larger.

Family LARVAEVORIDAE.

LESKIOPSIS, new genus.

Genotype.—*Myiobia thecata* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 105; Rev. Tach., 1897, p. 67, referred to *Leskia*.

Differs from *Leskia* as follows: Front of male much narrower and slightly narrowing anteriorly or equilateral. Head subhemispherical,

front not produced, epistoma not prominent, no ocellar bristles. Arista short-hairy. Palpi very slender. Cheeks very narrow in both sexes, eyes extending far below oral margin. Face much narrower; parafacials very narrow in both sexes, especially so in male. No median marginal macrochaetae on first abdominal segment in either sex. Claws very short in both sexes. Tarsi of both sexes slender. Hind crossvein straight, halfway between small crossvein and cubitus.

Differs from *Anthoica* and related genera by short claws, narrow male front, etc.

Differs from *Eumyobia* by the short proboscis, and by most of the characters of *Leskia* as to face and front, venation, etc.

Differs from *Ophirion* by the slender tarsi and short claws.

SIPHOLESKIA, new genus.

Genotype.—*Drepanoglossa occidentalis* Coquillett, Can. Ent., vol. 27, 1895, p. 126; Rev. Tach., 1897, p. 74, referred to *Epigrimyia*.

Differs from *Leskia* as follows: Proboscis elongate and slender, the part beyond geniculation much longer than head-height. Palpi longer, proportionately rather more slender. Epistoma much more prominent, projected anteriorly, the vibrissae set well back from oral margin. Apical cell widely open, ending a little before wingtip. Bend of fourth vein widely rounded, its course at cubitus being merely a broad curve.

The genus may be distinguished at once from *Parafischeria* Townsend by the longer proboscis, much narrower parafacials, and sinuate hind crossvein; from *Neofischeria* Townsend by the long proboscis and absence of discal macrochaetae on abdomen.

MYOBIOPSIS, new genus.

Genotype.—*Myobiopsis similis* Townsend, new species, for *Leskia analis* Coquillett, Rev. Tach., 1897, p. 67, part (not *Dexia analis* Say, Journ. Acad. Nat. Sci. Phila., vol. 6, 1829, p. 177), holotype being specimen labeled Andover, Massachusetts (Riley Coll.). Holotype, No. 19149, U.S.N.M., male. Paratypes include TD 4359, female; 4360, male.

Differs from *Eumyobia* as follows: Front and face about same length in both sexes. Inner vertical bristles present in male. Proboscis shorter. No median macrochaetae on first abdominal segment in either sex. Costal spine absent or vestigial. Apical cell practically closed in tip of wing. Hind crossvein about in middle between small crossvein and cubitus in male, slightly out of middle in female.

LESKIOPALPUS, new genus.

Genotype.—*Leskiopalpus calidus* Townsend, new species, for *Leskia analis* Coquillett, Rev. Tach., 1897, p. 67, part (not *Dexia analis* Say, Journ. Acad. Nat. Sci. Phila., vol. 6, 1829, p. 177), holotype being specimen labeled "Ithaca, N. Y. Coll. Chittenden." Holotype No. 19150, U.S.N.M., female.

Differs from *Myobiopsis* as follows: Proboscis stout, part below geniculation not as long as one eye. Palpi longer than antennae, curved, much widened on apical half, almost as wide as antennae. Apical cell widely open. Hind crossvein nearly straight, much nearer to cubitus than to small crossvein.

PARADEMOTICUS, new genus.

Genotype.—*Demoticus piperi* Coquillett, Rev. Tach., 1897, p. 122.

Differs from *Demoticus* as follows: Second arisal joint short. Parafacials broad. Cheeks of male a little less than one-half eye-height. Epistoma very prominent, projecting subhorizontally; vibrissae set well back from oral margin, but little longer than the closely-set peristomal bristles and barely differentiated therefrom, not decussate. Palpi stout-filiform, not thickened toward tip. Legs longer, stout. Apical cell widely open, ending well before wingtip, the last section of fourth vein long; hind crossvein much nearer cubitus, sinuate, subparallel with hind margin of wing. Abdomen with long bristly hairs.

HINEA, new genus.

Genotype.—*Nemoraea setigera* Coquillett, Proc. U. S. Nat. Mus., vol. 25, 1902, p. 111.

Differs from *Demoticus* as follows:

Female.—Front at vertex four-fifths of eye-width. Front strongly projecting in profile, facial profile strongly receding, the length of head at vibrissae about three-fifths that at base of antennae. Epistoma rather cut off, only faintly projecting. Third antennal joint fully twice the second, sharply truncate at tip, widening evenly from base to tip. Basal arisal joints short. Palpi swollen-rounded apically. Eyes thickly hairy. Sternopleurals, 1:1:1. Double discal pairs of bristles on median line of intermediate abdominal segments. Apical cell long-pointed, closed well before wingtip. Hind and apical crossveins closely approximated, nearly in line, subparallel with hind margin of wing. Fourth vein continued in long stump. Costal spine vestigial.

The genus is named in honor of Prof. J. S. Hine.

PELETERIOPSIS, new genus.

Genotype.—*Echinomyia flaviventris* Wulp, Biol. Centr.-Amer. Dipt., vol. 2, 1888, p. 32.

Differs from *Peleteria* as follows: Form stouter, abdomen much broadened. Cheeks distinctly less than eye-height. Parafacials much less than eye-width. Three or four strong proclinate fronto-orbitals in female, two in male. Palpi not so slender-filiform, more curved at tip, shorter. First two aristal joints elongate. Abdominal macrochaetae spinelike, erect. Second segment with four closely-placed median marginal macrochaetae. Anal segment bare of macrochaetae on less than front half. Small crossvein on middle of discal cell. Cubitus very much nearer to hind than to front margin of wing.

NOTE.—One female, head of Rio Piedras Verdes, Sierra Madre of Chihuahua, Mexico, about 7,300 feet, August 19, 1899 (Townsend); and one male, Rio Ruidoso, White Mountains of New Mexico, about 7,500 feet, August 3, 1898, on flowers of *Solidago trinervata* (Townsend). These may constitute a subspecies. They differ from Wulp's description mainly as follows: Whole face and cheeks pale golden. Anal segment brown, the color invading the yellow on hind median area of third segment. Wings lightly smoky throughout, tegulae yellowish-fuscous.

PELETERIOPSIS TEGULATA, new species.

Length of body, 13 to 13.5 mm.; of wing, 11.5 to 12 mm. Male and female, head of Rio Piedras Verdes, Sierra Madre of Chihuahua, Mexico, about 7,300 feet; the male July 15, 1899, on flowers of *Rhus glabra*; the female August 17, 1899 (Townsend).

Differs from the *P. flaviventris* specimens above mentioned as follows: Second antennal joint wholly clear rufous. Palpi much shorter. Tegulae white, with narrow brownish-yellow rims. Only two median marginal macrochaetae on second segment.

Holotype.—No. 19427, U.S.N.M., female. Allotype, male.

This form may be considered as representing subgenus B.

Family RHODOGYNIDAE.

OCYPTEROPSIS, new genus.

Genotype.—*Ocyptera flavifrons* Macquart, Dipt. Exot. Suppl., vol. 4 (suite), 1851, p. 187, pl. 20, fig. 1.

Differs from *Cylindromyia* as follows: Abdomen not cylindrical, gently but conspicuously broadening in middle from both base and tip. Proboscis slender, the part below geniculation conspicuously longer than lower border of head, pointed, labella not extruded laterally. Front of male at vertex about two-thirds eye-width. Arista slender,

not stout. Hind femora of male conspicuously pilose on the inside and below, hind trochanters each with long thick curved tuft of hair. Ventral plates of male normally not concealed by the overlapping lateral sclerites; no pair of spined processes visible at extremity of fourth ventral plate as in male of *Cylindromyia*.

Two males: Australia (Koebele); Koorawatha, New South Wales, 1902 (H. Brown), through Froggatt. Length, 9 to 11 mm.

OCYPTERODES, new genus.

Genotype.—*Ocyptera euchenor* Walker, List IV, 1849, p. 696.

Differs from *Cylindromyia* as follows: Basal segment of female hypopygium shorter than anal segment; abdomen swollen, gradually widening, not of even width throughout after base. Second antennal joint of female longer, third shorter. Second arisal joint of female short. Male with four strong long appressed bristles on median ventral line at hind edge of second abdominal segment; female shows weak ones. Female without any grasping spines on venter, same as in *Cylindromyia*.

NEODIONAEA, new genus.

Genotype.—*Dionaea nitoris* Coquillett, Can. Ent., vol. 30, 1898, p. 235.

Differs from *Dionaea* as follows: Abdomen of female narrow and equilateral, that of male slightly widened. Forceps of female not toothed, unarmed on inner surface save some minute spines and bristles, terminal joint elongate. Only two median marginal macrochaetae on segments one and two in female, marginal row on segments two and three in male. Antennae distinctly separated. Costal spine vestigial.

Dionaea timberlakei Walton, Proc. Ent. Soc. Wash., vol. 16, 1914, p. 91, also belongs to this genus.

PARADIONAEA, new genus.

Genotype.—*Leucostoma atra* Townsend, Trans. Amer. Ent. Soc., vol. 18, 1891, p. 380.

Differs from the rest of the group as follows: Female forceps meeting apically at acute angle, armed with teeth. First two abdominal segments without marginal row of bristles, but with only median marginal pair and laterals; third and fourth segments with marginal row. Fourth segment of female with scattered hairs, but subglabrous anteriorly. Hairs of abdomen not long. Proboscis short. Epistoma produced downward, not projecting. Vibrissae above oral margin. Frontalia narrow, averaging one-third of frontal width in male, less than that in female. Tegulae not of extraordinary size in male, but larger than in female.

NEOPSALIDA, new genus.

Genotype.—*Leucostoma neomexicana* Townsend, Can. Ent., vol. 24, 1892, p. 169.

May be distinguished from *Leucostoma* and allies by the following characters: Proboscis no longer than head height, not slender. Male with weak reclinate ocellar bristles, these of about equal strength with the frontals and vibrissae, all rather hairlike; no verticals in male. Epistoma produced downward instead of forward. Lower border of head distinctly less than frontal length. Vibrissae inserted well above oral margin. Checks of male much broader than in *Siphopsalida*, being about one-fifth eye height or somewhat more. Face of male over one-half width of head. Third antennal joint no longer than the second. Abdomen clothed with long erect or suberect bristly hairs, from which the true macrochaetae are not always easily distinguished; last three segments with marginal row of bristles. No costal spine. Petiole of apical cell conspicuously shorter than hind cross-vein. Tegulae in the male normally of enormous size, nearly as wide as wings.

PARAPSALIDA, new genus.

Genotype.—*Phyto nigricornis* Townsend, Can. Ent., vol. 24, 1892, p. 170.

Form stout; thorax and abdomen heavily built, latter in male as deep as wide. Femora of male much thickened, even tibiae usually considerably thickened. Claws of male very long. First abdominal segment with four median marginal macrochaetae and some lateral marginals, but no complete row; segments two to four of male with complete row. Abdomen of male thickly short-hairy, the macrochaetae all very strong and conspicuously differentiated from the hairs. Venter longer-hairy, femora hairy. Front of male in middle one-third head-width. Epistoma produced downward. Frontalia wide, occupying fully one-third of male frontal width and often more. Vibrissae above oral margin. Proboscis short. Petiole of apical cell almost as long as hind crossvein. Macrochaetae of head strong in male, the reclinate ocellars strong as well as the frontals and vibrissae. Two verticals in male, the outer ones longer than the occipito-orbital fringe. Lower border of head nearly equal to frontal length. Male cheeks nearly one-third eye-height. Antennae well separated, the second and third joints equal in length. Male wings narrow and elongate; costal spine developed. Tegulae of male of ordinary size.

ODONTOSOMA, new genus.

Genotype.—*Celatoria spinosa* Coquillett, Rev. Tach., 1897, p. 60 (TD 4383, female).

Differs from *Celatoria* as follows: Female with hind lateral angles of tergal sclerites of segments two and three bearing 8 to 10 strong short spines in a patch, making four such patches showing on venter. Male abdomen much more elongate. Front of female averaging less than width of one eye, that of male less than half eye-width. Facial depression very shallow. Antennae shorter. Apical cell narrowly open.

Family PHASIIDAE.

OEDEMATOPTERYX, new genus.

Genotype.—*Alophora pulverea* Coquillett, Rev. Tach., 1897, p. 46.

Differs from *Alophoropsis* as follows: Male frontalia narrowed by parafrontals, which creep over them from each side in front of ocellar area. Male wings characteristically swollen on costal cell, faintly excavated on subcostal cell, more narrowed apically. Head, thorax, and abdomen much more narrowed in proportion to length of body. Abdomen heavily brassy-gray or gray pollinose in both sexes, opaque. Vibrissae hairlike, usually not differentiated from the peristomal bristles. No ocellar bristles.

Alophora fumosa Coquillett also belongs to this genus.

TRICHOCLYTIA, new genus.

Genotype.—*Clytiomyia atrata* Coquillett, Journ. N. Y. Ent. Soc., vol. 3, 1895, p. 53.

Differs from the genotype of *Clytiomyia* (*helvola* Meigen) as follows: Front very narrow in both sexes, the eyes nearly contiguous. Abdomen clothed with fine hairs; no discal macrochaetae, no marginal row on second segment, at most very weak hairlike median marginal pair on second segment. All macrochaetae weak and bristlelike at best. Facial plate like *Phorantha*. Hind crossvein almost parallel with apical crossvein and close to origin of latter, both being nearly parallel with hind margin of wing. Claws of male extremely long.

Holotype is a female from the State of Washington (O. B. Johnson). There are two males from Julietta, Idaho, in the collection.